

New claims 19 and 23 to 26

5 19. A process for the preparation of a flame-resistant
aminoplast resin system as claimed in at least one
of claims 1 to 18, characterized in that

10 a) a modified aminoplast resin solution or
aminoplast resin suspension is prepared from an
aminoplast former, a carbonyl compound and a
C₁-C₄-alcohol at pH = 2 to 7, a temperature of
from 40 to 160°C and a pressure of from 0 to 5
bar and a reaction time of from 5 to 300
minutes,

15 b) after the pH has been made alkaline, the
modified aminoplast resin solution or
aminoplast resin suspension is concentrated by
distilling off the solvent at from 50 to 180°C
and from -1 to 0 bar and in a residence time of
from 1 to 120 minutes to give a substantially
solvent-free aminoplast resin melt,

20 c) the substantially solvent-free aminoplast resin
melt is reacted at a temperature of from 130 to
250°C and from -1 to 0 bar and in a residence
time of from 0.5 to 10 minutes in an extruder
or kneader for pre-condensation and
conditioning,

25 the addition of at least one compound enclosed
by a capsule wall material, i.e. present in
encapsulated form, being effected during or
after step a) and/or during or after step b)
and/or during or after step c), whereupon

30 d) the flame-resistant aminoplast resin system is
compounded and discharged.

35 23. The use of a flame-resistant aminoplast resin

system as claimed in at least one of claims 1 to 18 for the preparation of hybrid resin systems, the hybrid resin systems being prepared by mixing and/or chemical reaction of the flame-resistant aminoplast resin systems with modified and/or unmodified melamine-formaldehyde resins, epoxy resins, polyurethane resins, unsaturated polyester resins and/or alkyd resins as melts in a kneader, mixer or extruder.

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24. The use of a flame-resistant aminoplast resin system as claimed in at least one of claims 1 to 18 in the form of granules and/or powder as compression molding resin or as injection molding resin.

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25. The use of a flame-resistant aminoplast resin system as claimed in at least one of claims 1 to 18 for the production of a composite material, a substrate material being coated with the flame-resistant aminoplast resin system in powder form and/or the aminoplast resin system being melted and the substrate material being drawn through the resin melt, whereupon a pre-condensation step in the range of about 110-250°C for a duration of about 1-10 minutes is effected, whereupon the storable prepreg obtained is subjected to shaping with a temperature increase and is cured thereby.

26. The use of a flame-resistant aminoplast resin system as claimed in at least one of claims 1 to 18 for pipes, sheets, profiles, injection molded parts or fibers, as a curing agent or crosslinking agent in powder coating systems or for the production of flame-resistant shaped articles.